

## SUPPORTING THE PROVISION OF SERVICES

### FIELD OF THE DISCLOSURE

**[0001]** The invention relates to the field of services. It relates in particular to supporting the provision of services to a user by means of a mobile device.

### BACKGROUND

**[0002]** When a person is in the vicinity of a real world object, he/she may wish to make use of a service that is related to the object using a mobile device, like a smartphone. Useful services can range from the presentation of descriptive information or status information on the object to the enablement of complex interactions in order to operate the object.

**[0003]** Usually, a person has to perform some kind of service discovery in order to find such a service, if available.

### SUMMARY OF SOME EMBODIMENTS OF THE INVENTION

**[0004]** For a first aspect of the invention a method is described, which comprises receiving captured data on an environment of a mobile device. The method further comprises evaluating whether the captured data can be matched to an object model stored in the mobile device, the mobile device storing at least one object model and associated information, wherein the associated information links a service to the object model and identifies a type of the service. The method further comprises, when a matching object model is found, determining a type of a service that is linked to the matching object model based on information associated with the matching object model, and causing an action supporting a provision of the service to a user taking account of the determined type of service.

**[0005]** For a second aspect of the invention a method is described, which comprises creating an object model of a real world object based on captured data on the real world object. The method further comprises associating information to the object model, wherein the associated information links a service to the object model and identifies a type of the service. The method further comprises providing the object model and the associated information for use in a mobile device.

**[0006]** For each of the aspects of the invention, moreover a first apparatus is described, which comprises means for realizing the actions of the method presented for the first and/or second aspect of the invention.

**[0007]** The means of these apparatuses can be implemented in hardware and/or software. They may comprise for instance a processor for executing computer program code for realizing the required functions, a memory storing the program code, or both. Alternatively, they could comprise for instance circuitry that is designed to realize the required functions, for instance implemented in a chipset or a chip, like an integrated circuit.

**[0008]** For each of the aspects of the invention, moreover a second apparatus is described, which comprises at least one processor and at least one memory including computer program code, the at least one memory and the computer program code configured to, with the at least one processor, cause an apparatus at least to perform the actions of the method presented for the first and/or second aspect of the invention.

**[0009]** For each of the aspects of the invention, moreover a non-transitory computer readable storage medium is described, in which computer program code is stored. The computer program code causes an apparatus to realize the actions of the method presented for the first and/or second aspect of the invention when executed by a processor.

**[0010]** The computer readable storage medium could be for example a disk or a memory or the like. The computer program code could be stored in the computer readable storage medium in the form of instructions encoding the computer-readable storage medium. The computer readable storage medium may be intended for taking part in the operation of a device, like an internal or external hard disk of a computer, or be intended for distribution of the program code, like an optical disc.

**[0011]** It is to be understood that also the computer program code by itself has to be considered an embodiment of the invention.

**[0012]** Any of the described apparatuses may comprise only the indicated components or one or more additional components.

**[0013]** Any of the described apparatuses for the first and second aspect may be a module or a component for a device, for example a chip. Alternatively, any of the described apparatuses for the first aspect may be a mobile device, and any of the described apparatuses for the second aspect may be any device configured to create an object model, including stationary devices and mobile devices.

**[0014]** In one embodiment, the described methods are information providing methods, and the described first apparatus for each aspect is an information providing apparatus. In one embodiment, the means of the described first apparatus for each aspect are processing means.

**[0015]** In certain embodiments of the described methods, the methods are methods for supporting the provision of a service to a user. In certain embodiments of the described apparatuses, the apparatuses are apparatuses for supporting the provision of to a user.

**[0016]** In one embodiment, the described methods are information providing methods, and the described first apparatuses are information providing apparatuses. In one embodiment, the means of the described first apparatuses are processing means.

**[0017]** It is to be understood that the presentation of the invention in this section is merely exemplary and non-limiting.

**[0018]** Other features of the present invention will become apparent from the following detailed description considered in conjunction with the accompanying drawings. It is to be understood, however, that the drawings are designed solely for purposes of illustration and not as a definition of the limits of the invention, for which reference should be made to the appended claims. It should be further understood that the drawings are not drawn to scale and that they are merely intended to conceptually illustrate the structures and procedures described herein.

### BRIEF DESCRIPTION OF THE FIGURES

**[0019]** FIG. 1 is a schematic block diagram of an exemplary embodiment of an apparatus according to the first aspect of the invention;

**[0020]** FIG. 2 is a flow chart illustrating an exemplary operation in the apparatus of FIG. 1;